PATENT
Docket No.: **176/60441 (1-110334-704)**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Miller et al.	Examiner: B. Celsa
Serial No.	:	09/181,108	Art Unit: 1627
Cnfrm. No.	:	9507	
Filed:	:	October 28, 1998	
For	:	COMBINATORIAL LIBRARIES	

CERTIFICATE OF FACSIMILE TRANSMISSION

U.S. Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

I hereby certify that this Petition to Reset a Period for Reply (with Exhibits A-C) is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Date: December 19, 2002

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Registration No. 40,087

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FAX

To:	Company	Fax #:	Telephone #:
1) Ex. Bennett Celsa	USPTO	(703) 872-9302	
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From: Edwin V. Merkel	Date: December 19, 2002	No. of Pages: 27 (including this page)	

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#25 B.Y. 1-23-03

PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Miller et al.	Examiner: Bennett Celsa
Serial No.	: 09/181,108	Art Unit: 1627
Cnfrm. No.	: 9507	
Filed	: October 28, 1998	
For	: COMBINATORIAL LIBRARIES	

PETITION TO RESET A PERIOD FOR REPLY

U.S. Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

Applicants hereby petition to restart the response period for the Office action mailed July 5, 2002 for the above-identified patent application due to late receipt of the Office action. Pursuant to 37 C.F.R. § 1.181(a) and Manual of Patent Examining Procedure (MPEP) § 710.06, applicants hereby petition the Commissioner for Patents to reset the period for reply to start from December 17, 2002, the date of receipt by facsimile of the said Office action.

On December 17, 2002, Mary DiPaolo (a paralegal in our office) telephoned the U.S. Patent and Trademark Office ("PTO") Customer Service Center for Technology Center 1600 and spoke with Aster Abdi regarding the status of the above-identified application. Ms. Abdi told Ms. DiPaolo that an Office action was mailed July 5, 2002, and thereafter sent a facsimile copy of the said Office action to her. A copy of the sixteen page facsimile, including the facsimile transmittal sheet from the PTO Customer Service Center for Technology Center 1600, is attached hereto as Exhibit A. The copy of the Office action attached as Exhibit A has on page 3 thereof (form PTO-326) a date-stamp acknowledging receipt on December 17, 2002 and a hand-written notation indicating a shortened statutory deadline of October 5, 2002.

It appears that non-receipt of the Office action following the original mailing date is the fault of the PTO. The Office action was mailed to "Peter Rogalskyj at Nixon, Hargrave, Devans & Doyle, Clinton Square, P.O. Box 1051, Rochester, New York 14603"

(see page 2 of Exhibit A). However, upon filing of the Continued Prosecution Application, the transmittal letter (signed by the undersigned attorney of record) instructed the PTO to address all future communications to: "Michael L. Goldman, Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, New York 14603-1051". Thus, the PTO should have used the new address for mailing the Office action. A copy of the transmittal letter as filed, with its express mail certificate, is attached hereto as Exhibit B.

The undersigned attorney hereby asserts that a search of the file jacket and docket records indicates that the Office action was not received prior to December 17, 2002. A copy of the docketing record for the above-identified application showing the last action entered (the completed date of May 6, 2002 showing receipt of the return receipt postcard) is attached hereto as Exhibit C.

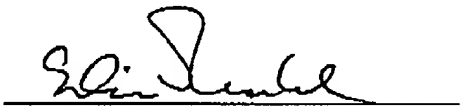
Applicants submit that this Petition is being filed in compliance with MPEP § 710.06, because this Petition is being filed within two weeks of receipt of the Office action on December 17, 2002 (see Exhibit A) and a substantial portion of the set reply period had elapsed as of the date of receipt. Specifically, well over five months of the statutory period for reply had elapsed.

Although applicants believe that no fee is due upon consideration of this Petition, the Commissioner is authorized to charge any necessary fees to our Deposit Account No. 14-1138.

In view of all of the foregoing in satisfaction of the requirements under 37 CFR § 1.181 and MPEP § 710.06, applicants respectfully request that the period of reply be reset to start from December 17, 2002 (the date of receipt by facsimile of the July 5, 2002 Office action).

Respectfully submitted,

Date: December 19, 2002



Edwin V. Merkel
Registration No. 40,087

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EXHIBIT A

United States Patent & Trademark Office

Customer Service Center, Technology Center 1600

703/308-0198

FACSIMILE TRANSMITTAL SHEET

TO: Mary Di Paolo	FROM: Aster
COMPANY:	DATE: 12/17/02
FAX NUMBER: 585-263-1600	TOTAL NO. OF PAGES INCLUDING COVER: 16
PHONE NUMBER: 585-263-1127	SENDER'S FAX NUMBER: 703.308.4407
RE: APPLICATION NUMBER 09/181,108	YOUR REFERENCE NUMBER:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

US PATENT AND TRADEMARK,CRYSTAL MALL 1,1911 SOUTH CLARK STREET 7TH FLOOR,
ARLINGTON VIRGINIA 22202

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/181,108	10/28/1998	BENJAMIN L. MILLER	176/60440-(1	9507

7590 07/05/2002

PETER ROGALSKYJ
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EXAMINER	
CELSA, BENNETT M	

ART UNIT	PAPER NUMBER
1627	

DATE MAILED: 07/05/2002 24

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

file copy

Office Action Summary	Application No. 09/181,108	Applicant(s) Miller et al.
	Examiner Bennett Celsa	Art Unit 1627

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Apr 22, 2002*.

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

ENTERED
Nixon Peabody LLP

4) ☒ Claim(s) *1-7 and 10* is/are pending in the application.

4a) Of the above, claim(s) DEC 17 2002 is/are withdrawn from consideration.

5) ☐ Claim(s) 176/60441 is/are allowed.

6) ☒ Claim(s) *1-7 and 10* FILE DKT Amendment Due October 5 2002 is/are rejected.

7) ☐ Claim(s) is/are objected to.

8) ☐ Claims are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). .
4) ☐ Interview Summary (PTO-413) Paper No(s). .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 4/22/02 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/181,108 is acceptable and a CPA has been established. An action on the CPA follows.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Status of the Claims

Claims 1-7 and 10 are pending and under consideration.

Election/Restriction

3. Applicant's election of Group I (original claims 1-10), with traverse in paper No. 10 and applicant's further election, without traverse, of the species of bis-N-[2-(2-aminomethyl)-1-methyl pyrrolidine]salicyladimanate Zinc II in Paper No. 13 which reads on claims 1-7 and 10 in response to the Supplemental Election of Species in paper no. 11 is again acknowledged.

4. It is noted that the prior obvious rejection of the over Barton US Pat. No. 4,980,473 (12/90) and Benner, U.S. Pat. No. 5,958,702 (9/99: filed 2/95) has been withdrawn, without prejudice in lieu of the use of the more appropriate Barton '032 reference below .

5. Upon further consideration, the 102/103 rejection over the Jacobsen WO reference is withdrawn in lieu of the new 103 rejection including this reference, cited below.

Claim Rejections - 35 USC § 102 and 35 USC § 103

5. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Huc et al. PNAS USA Vol. 94 pages 2106-2110 (3/97).

The general application of "Receptor Assisted Combinatorial Chemistry" to generate libraries of "reversible" complexes for receptor screening in equilibrium under "physiological conditions" (e.g. aqueous) is taught by the Huc et al. reference (e.g. See Abstract and for aqueous environment: see Huc et al. at page 2107 right column: "reaction on which the library is based ... physiological conditions ... equilibrate in presence of receptor"; and on page 2108, left column in which the CA enzyme is present "in water at pH6"). For example, Huc et al. teach the making and screening (e.g. using "receptor-induced assembly" : see abstract and fig. 1) of a combinatorial library of "reversible" "labile" bonded complexes of "a plurality of at least six different complexes" (e.g. greater than or equal to 24 complexes: 4x6 plus enantiomers) under "physiological conditions" (e.g. in aqueous solution or suspension in equilibrium) in the presence of "a biological receptor" (e.g. a transition metal Zn+2 & carbonic anhydrase: CAII) in which 4 or more amine ligands (e.g. a-d in Fig. 2) and 6 or more aldehyde/alcohol ligands are present in aqueous solution in the presence of CAII (e.g. Zn+2 and carbonic anhydrase). See Fig. 1-2; page 2107-2108. Such a technique results in the generation of large libraries which are most easily screened in solution.

6. Claims 1-7 and 10 are rejected under 35 U.S.C. 103(a) as obvious over Huc et al. PNAS USA Vol. 94 pages 2106-2110 (3/97) alone or further in view of Benner, U.S. Pat. No. 5,958,702 (9/99: filed 2/95).

The general application of "Receptor Assisted Combinatorial Chemistry" to generate libraries of "reversible" complexes for receptor screening in equilibrium under "physiological conditions" (e.g. aqueous) is taught by the Huc et al. reference (e.g. See Abstract and for aqueous environment: see Huc et al. at page 2107 right column: "reaction on which the library is based ... physiological conditions ... equilibrate in presence of receptor"; and on page 2108, left column in which the CA enzyme is present "in water at pH6"). For example, Huc et al. teach the making and screening (e.g. using "receptor-induced assembly" : see abstract and fig. 1) of a combinatorial library of "reversible" "labile" bonded complexes of "a plurality of at least six different complexes" (e.g. greater than or equal to 24 complexes: 4x6 plus enantiomers) under "physiological conditions" (e.g. in aqueous solution or suspension in equilibrium) in the presence of "a biological receptor" (e.g. a transition metal Zn+2 & carbonic anhydrase: CAII) in which 4 or more amine ligands (e.g. a-d in Fig. 2) and 6 or more aldehyde/alcohol ligands are present in aqueous solution in the presence of CAII (e.g. Zn+2 and carbonic anhydrase). See Fig. 1-2; page 2107-2108. Such a technique results in the generation of large libraries which are most easily screened in solution. .

The Huc et al reference libraries differs from the presently claimed invention insofar that the presently claimed invention "collects together" (e.g. combinatorializes) in libraries of "at least 100 different complexes" (e..g see present claim 10)

However, the Huc et al. reference motivates one of ordinary skill in the art to generate "all possible combinations of a set of basic components, thus making virtually available all structural and interactional features that these combinations may present" (e.g. see Huc et al. Page 2106). Accordingly, the Huc et al. provides explicit motivation to scale up the library by increasing the number of ligands (e.g. aldehyde and/or amine ligands) and form bigger libraries in order to generate and screen better receptor binding compounds (e.g. see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to "scale up" the Huc et al. Library and obtain "at least 100 different complexes" within the scope of the presently claimed invention.

Additionally, the Benner reference discloses the advantages of utilizing soluble "combinatorial library" techniques for generated diverse structures which could then be advantageously screened e.g. using a "receptor-assisted combinatorial chemistry" (e.g. see col. 2-5).. In this regard, the Benner reference discloses the versatility of this approach as utilized over a wide range of complexed atoms, groups of atoms or ions. In this regard, the Benner reference discloses the use of biopolymer or non-biopolymer ligands

Thus, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to "scale up" the Huc et al. Library and obtain "at least 100 different

complexes" within the scope of the presently claimed invention as suggested by the Huc reference teaching alone or in view of the Benner reference teaching.

7. Claims 1-7 and 10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bruno et al. US Pat. No. 5,976,887 (11/99: filed 6/97) in view of the specification (e.g. page 10) cited in order to demonstrate the presence of functional properties inherent to the disclosed reference ligands. See MPEP 2131.01(d) which permits the citation of references or evidence in an anticipation rejection under 35 U.S.C. 102 in order to show that a characteristic not disclosed in the reference is inherent.

Bruno discloses the formation of combinatorial metal/ligand library complexes comprising aqueous equilibrium mixtures (e.g. see presence of deionized water in assay of example 1; or source of (transition) metal ions being wastewater, sewage etc: col. 1 and patent claims) of 3 or more diaminoaromatic ligands (e.g. see 2/4 diaminotoluene; 3/4 diaminotoluene; 2/3 diaminotoluene; e.g. see patent claims 1,) and one or more metals (especially transition metals) (e.g. Au, Cu, Cr, Fe, Ru, Se and Va) to form combinatorial libraries of reversible metal/ligand complexes. The reference disclosure of the use of 17 metal ions (e.g. see Table 1) with two separate generics of substituted (with R)/unsubstituted diamino phenyl and substituted (withR)/unsubstituted naphythyl ligands would immediately envisage (e.g. anticipate) or in the alterative render obvious the making of a library of complex of 100 or greater [e.g. 17x 6(or more) phenyl ligands x 6(or more)naphthal ligands]. The formation of the metal reference

complex ensure that the reference ligands possess "at least one functional group capable of bonding to the metal atom" (e.g. an amino group). Additionally, all of the reference ligands inherently contain either unsubstituted or substituted (e.g. with amino or R) phenyl groups and thus comprise "a recognition group capable of binding a biological receptor" since recognition elements (e.g. DNA intercalators) include "substituted or unsubstituted phenyl groups" (e.g. see specification page 10, lines 4-5). Additionally, the reference ligands are "capable" of being modified to contain "recognition groups" within the scope of the presently claimed invention and thus would "comprise a recognition group *capable of* binding a biological receptor". It is noted that the reference complexes (e.g. see reference figures 1-13, especially figure 13) encompass the formation of complexes within the structural formula of present claims 1-7 and thus would be expected to inherently possess "a rate constant of greater than about 2 per second" since complexation does occur preferentially with the binding of 3 ligands/metal. However, in this regard it is noted that the Patent Office lacks the facilities for making comparisons between prior art and reference reaction kinetics; thus shifting the burden to applicant who is better able to make such comparisons.

8. Claims 1-7 and 10 are rejected under under 35 U.S.C. 103(a) as obvious over Jacobsen et al. WO 98/12156 (3/98) in view of Huc et al. PNAS USA Vol. 94 pages 2106-2110 (3/97) alone or if necessary further in view of Benner US Pat. No. 5,958,702 (9/99) ...

Jacobsen et al. disclose a combinatorial approach for generating novel coordination complex mixtures of "at least 6" (e.g. see page 6, lines 5-10) by coordinating to a transition metal (e.g. including zinc: see e.g.. Page 6, lines 17-26) and ligands (e.g. non-biopolymer: see e.g. pages 25-31) to form bidentate, tridentate, tetradentate or even higher order metal chelating ligands (e.g. see page 6, lines 7-10; and abstract). Additionally, a large number of the reference ligands (e.g. see pages 25-31) comprise substituted and unsubstituted aryl and heterocyclic moieties which would constitute "recognition elements" that are capable of being classed as "DNA intercalators" or "major or minor groove DNA binders" within the open ended specification definition of these terms (e.g. see specification pages 7-10 which encompass aryl and heterocycles as well as "hydroxy"; "alkoxy" or "amine" groups which are within the scope of the presently claimed invention) with these ligands being either phenyl or substituted derivative which further comprise an amine moiety. Alternatively , the selection of such an intercalating ligand would be obvious to one of ordinary skill in the art. See e.g. reference claims 29-30 and Fig. 1-11 disclose specific reference library combinations which are within the scope of the presently claimed invention.

Additionally, the Jacobsen reference also teaches that the reaction of the metal(s) with the library of PBM to form a combinatorial library of potential catalysts comprising metal complexes

can occur in "solution", on a soluble support or utilizing insoluble polymeric supports (e.g. see page 39).

The Jacobsen reference making and screening of combinatorial solution phase library metal complexes differs from the presently claimed invention insofar that the presently claimed invention forms combinatorial libraries of complexes, such as those in Jacobson, in aqueous solution using "Receptor Assisted Combinatorial Chemistry" (aka RACC)..

The general application of "Receptor Assisted Combinatorial Chemistry" to generate libraries of "reversible" complexes for receptor screening in equilibrium under "physiological conditions" (e.g. aqueous) is taught by the Huc et al. reference (e.g. See Abstract and for aqueous environment: see Huc et al. at page 2107 right column: "reaction on which the library is based ... physiological conditions ... equilibrate in presence of receptor"; and on page 2108, left column in which the CA enzyme is present "in water at pH6"). For example, Huc et al. teach the making and screening (e.g. using "receptor-induced assembly" : see abstract and fig. 1) of a combinatorial library of "reversible" "labile" bonded complexes of "a plurality of at least six different complexes" (e.g. greater than or equal to 24 complexes: 4x6 plus enantiomers) under "physiological conditions" (e.g. in aqueous solution or suspension in equilibrium) in the presence of "a biological receptor" (e.g. a transition metal Zn+2 & carbonic anhydrase: CAII) in which 4 or more amine ligands (e.g. a-d in Fig. 2) and 6 or more aldehyde/alcohol ligands are present in aqueous solution in the presence of CAII (e.g. Zn+2 and carbonic anhydrase). See Fig. 1-2; page

2107-2108. Such a technique results in the generation of large libraries which are most easily screened in solution. .

Additionally,, the Benner reference discloses the advantages of utilizing soluble "combinatorial library" techniques for generated diverse structures which could then be advantageously screened e.g. using a "receptor-assisted combinatorial chemistry" (e.g. see col. 2-5).. In this regard, the Benner reference discloses the versatility of this approach as utilized over a wide range of complexed atoms, groups of atoms or ions. In this regard, the Benner reference discloses the use of biopolymer or non-biopolymer ligands

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply RACC to the Jacobson transition metal and ligands (e.g. phenanthroline etc.) Libraries to generate complexes which contain "recognition elements" that are "capable of" binding a "target molecule" in solution (e.g. aqueous sol'n or suspension) in view of the advantages of utilizing combinatorial techniques (e..g increasing diversity) in solution (e.g. aqueous) as well as the advantages of utilizing improved screening techniques (e.g. receptor-assisted combinatorial chemistry) as disclosed in the Huc et al. reference taken alone or further in view of the Benner reference teaching.

9. Claims 1-7 and 10 are rejected under 35 U.S.C. 103(a) as obvious over Barton US Pat. No. 5,157,032 (10/92) in view of Huc et al. PNAS USA Vol. 94 pages 2106-2110 (3/97) alone or if necessary further in view of Benner US Pat. No. 5,958,702 (9/99) .

Barton discloses (chiral) reversible coordination complexes of transition metals which comprise "at least two non-biopolymer ligands" (e.g. three ligands which comprise unsubstituted/substituted 1,10 phenanthrolines, racemers and isomers) which contain a "recognition element" which "targets" DNA (e.g. see abstract, examples and patent claims, especially patent claim 1). For example, Barton discloses a cobalt complex with ligands which comprise 1,10 phenanthroline and a list of 12 "substituted" phenanthrolines" (e.g. hydroxy, phenyl, substituted phenyl intercalotors etc.) which include their racemers (e.g. see col. 7, lines 1-40) which would encompass at least 169 distinct complexes (e.g. 13x13 representing 13 unsubstituted and substituted and their D/L enantiomers). These complexes are then screened for their binding to a "receptor" (e.g. DNA) by intercalation: see. bottom of col. 7 to top of col. 8).

The Barton reference composition differs from the presently claimed invention insofar that the presently claimed invention forms combinatorial libraries of complexes, such as those in Barton, in aqueous solution using "Receptor Assisted Combinatorial Chemistry" (aka RACC)..

The general application of "Receptor Assisted Combinatorial Chemistry" to generate libraries of "reversible" complexes for receptor screening in equilibrium under "physiological conditions" (e.g. aqueous) is taught by the Huc et al. reference (e.g.See Abstract and for aqueous environment: see Huc et al. at page 2107 right column: "reaction on which the library is

based ... physiological conditions ... equilibrate in presence of receptor"; and on page 2108, left column in which the CA enzyme is present "in water at pH6"). For example, Huc et al. teach the making and screening (e.g. using "receptor-induced assembly" : see abstract and fig. 1) of a combinatorial library of "reversible" "labile" bonded complexes of "a plurality of at least six different complexes" (e.g. greater than or equal to 24 complexes: 4x6 plus enantiomers) under "physiological conditions" (e.g. in aqueous solution or suspension in equilibrium) in the presence of "a biological receptor" (e.g. a transition metal Zn+2 & carbonic anhydrase: CAII) in which 4 or more amine ligands (e.g. a-d in Fig. 2) and 6 or more aldehyde/alcohol ligands are present in aqueous solution in the presence of CAII (e.g. Zn+2 and carbonic anhydrase). See Fig. 1-2; page 2107-2108. Such a technique results in the generation of large libraries which are most easily screened in solution. ..

Additionally, the Benner reference discloses the advantages of utilizing soluble "combinatorial library" techniques for generated diverse structures which could then be advantageously screened e.g. using a "receptor-assisted combinatorial chemistry" (e.g. see col. 2-5).. In this regard, the Benner reference discloses the versatility of this approach as utilized over a wide range of complexed atoms, groups of atoms or ions. In this regard, the Benner reference discloses the use of biopolymer or non-biopolymer ligands

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply RACC to the Barton generic of transition metal and ligands (e.g. phenanthroline etc.) to generate complexes which contain "recognition elements" that are

"capable of" binding a "target molecule" (e.g. DNA) in solution (e.g. aqueous sol'n or suspension) in view of the advantages of utilizing combinatorial techniques (e..g increasing diversity) in solution (e.g. aqueous) as well as the advantages of utilizing improved screening techniques (e.g. receptor-assisted combinatorial chemistry) as disclosed in the Huc et al. reference taken alone or further in view of the Benner reference teaching.

Additionally, scaling the library up by increasing the number of library members (e.g. increase the number of Barton substituted phenanthroline ligand) to attain increased diversity is suggested by both the Huc et al. And Benner references, taken separately or in combination, and would in any event represent mere optimization to one of ordinary skill in the art.

General information regarding further correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Celsa whose telephone number is (703) 305-7556.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jyothsna Venkat (art unit 1627), can be reached at (703)308-0570.

Any inquiry of a general nature, or relating to the status of this application, should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Bennett Celsa (art unit 1627)

July 3, 2002

BENNETT CELSA
PRIMARY EXAMINER

Notice of References Cited

Application/Control No.	Applicant(s)/Patent Under Reexam	
09/181,108	Miller et al.	
Examiner	Art Unit	
Bennett Celsa	1627	Page 1 of 1

U.S. PATENT DOCUMENTS

		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification	
	A	5,157,032	10/1992	Barton	514	185
	B	5,976,887	11/1999	Bruno et al.	436	80
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification	
	N						
	O						
	P						
	Q						
	R						
	S						
	T						

NON-PATENT DOCUMENTS

		Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
	U	
	V	
	W	
	X	

[1] A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a). [2] Dates in MM-YYYY format are publication dates. [3] Classifications may be U.S. or foreign.

EXHIBIT B

EXPRESS MAIL CERTIFICATE

DOCKET NO. : **176/60441 (1-110334-704)**

APPLICANTS : **Benjamin L. Miller and Bryan Klekota**

TITLE : **COMBINATORIAL LIBRARIES**

Certificate is attached to the **Continued Prosecution Application (CPA) Request Transmittal Letter (2 pages)** of the above-named application.

"EXPRESS MAIL" NUMBER: **EL801320232US**
DATE OF DEPOSIT: **April 22, 2002**

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the U.S. Patent and Trademark Office, P.O. Box 2327, Box: CPA, Arlington, VA 22202.

Suzanne Ciaio
(Typed or printed name of person mailing paper or fee)

Suzanne Ciaio
(Signature of person mailing paper or fee)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CONTINUED PROSECUTION APPLICATION (CPA)
REQUEST TRANSMITTAL
(only for Continuation or Divisional applications under 37 CFR 1.53(d))

Docket No.: **176/60441 (1-110334-704)**
Express Mail No.: **EL801320232US**
Examiner: **B. Celsa**
Art Unit: **1627**

Commissioner for Patents
Washington, D.C. 20231
BOX: CPA

This is a Request for filing a:

[X] continuation or
[ ] divisional application

under 37 CFR 1.53(d), continued prosecution application, (CPA) of prior application number **09/181,108**, filed on **October 28, 1998**, of **Benjamin L. Miller and Bryan Klekota** entitled **COMBINATORIAL LIBRARIES**.

The above-identified prior pending application is hereby expressly abandoned as of the filing date of this request for a continued prosecution application (CPA).

1. [X] Enter the unentered amendment previously filed on **October 18, 2001** under 37 CFR 1.116 in the prior nonprovisional application.

2. [ ] A preliminary amendment is enclosed.

3. [ ] This application is filed by fewer than all the inventors named in the prior application, 37 CFR 1.53 (d)(4).

   a. [ ] **Delete** the following inventor(s) named in the prior nonprovisional application:

   _____

   _____

   _____

   b. [ ] The inventor(s) to be deleted are set forth on a separate sheet enclosed herewith.

4. [ ] A new power of attorney is enclosed herewith.

5. [ ] Information Disclosure Statement (IDS) with PTO-1449 form(s) and copies of references are enclosed herewith.

6. The filing fee is calculated on the basis of the claims existing in the prior application as amended above:

	(Col. 1)	(Col. 2)	SMALL ENTITY			LARGE ENTITY	
FOR:	NO. FILED	NO. EXTRA	RATE	FEE	OR	RATE	FEE
BASIC FEE	XXXXXXXXX	XXXXXXXX	XXXXX	$370	OR	XXXXX	$740
TOTAL CLAIMS	8 - 20 =	0	x 9 =	$0	OR	x 18 =	$
INDEP CLAIMS	1 - 3 =	0	x 42 =	$0	OR	x 84 =	$
[ ] MULTIPLE DEPENDENT CLAIM PRESENTED			x140 =	$0	OR	x280 =	$
			TOTAL	$370	OR	TOTAL	$

*If the Total Claims are less than 20 and Indep. Claims are less than 3, enter "0" in Col. 2

7. [X] A check in the amount of $370.00 is enclosed to cover the above filing fee.

8. [X] The Commissioner is hereby authorized to charge fees which may be required, or credit overpayment to Deposit Account No. 14-1138. A duplicate copy of this sheet is enclosed.

9. Small entity status:

   [X] Applicants claim small entity status. (See 37 CFR 1.27.)

   [ ] A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.

   [ ] is no longer claimed.

10. [X] A copy of the Request for Five-Month Extension of Time in prior application.

11. [X] A self-addressed, prepaid postcard for acknowledging receipt.

12. Other:

Address all future communications to (may only be completed by Applicant, or attorney or agent of record):

Michael L. Goldman
NIXON PEABODY LLP
Clinton Square
P.O. Box 31051
Rochester, New York 14603-1051

Respectfully submitted,

Date: April 22, 2002

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EXHIBIT C

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Case History For Docket Number: 176/60441 Country: USA

Report Run Date:18DE2002

Application Number: 09/181,108
Application Date: 28OC1998
Patent Number:
Grant Date:
Client/Division: UR RIVER CAMPUS
Attorney: MLG
Current Owner: UNIVERSITY OF ROCHESTER
Inventors:
Title: COMBINATORIAL LIBRARIES

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Action: FILING RECEIPT REMINDER	Completed Date:	Taken Date:	Due Date: 22JL2002
Action: SMALL ENTITY	Completed Date:	Taken Date:	Due Date:
Action: CONTINUING PROSECUTION FILED	Completed Date: 22AP2002	Taken Date:	Due Date:
Action: POSTCARD REMINDER	Completed Date: 06MY2002	Taken Date:	Due Date: 22MY2002
Action: STATUS INQUIRY	Completed Date:	Taken Date:	Due Date: 22OC2002